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CONDITIONS IN PRESS AND FORGING-EQUIPMENT PLANTS IN THE USSR

[Comment: This report presents information from articles published in the thrice-weekly Moscow newspaper Promyshlennno-Ekonomicheskaya Gazeta for the period 16 May-27 July 1956 on conditions in the USSR press and forging-equipment industry. This newspaper sent its correspondents to various press and forging-equipment plants to investigate conditions in these plants, whose production largely determines the technical progress in the machine-building industry. Their task was to report on the unsatisfactory performance of several of these plants.

This report also includes an article giving an over-all view of the USSR press and forging-equipment industry, its shortcomings, plans, and needs, and an article by the director of the Kolomna Heavy Machine Tool Building Plant.

Source dates are given in parentheses at the end of each article.]

Shortcomings, Plans, and Needs

The Ministry of Machine Tool Building and Tool Industry and the Ministry of Heavy Machine Building are making press and forging equipment basically for smith forging of metal. These ministries are not adequately concerned about turning out machines for making die forgings as close to the finished shape of a piece as possible.

The machine tool building industry has organized the production of 259 type-sizes of press and forging machines. By the end of 1960, the total output should reach 500 type-sizes. The Ministry of Heavy Machine Building is turning out 25 type-sizes of press and forging machines, including 4 type-sizes of horizontal forging machines of 3,000-ton pressure, and 4 type-sizes of forging and stamping hammers with falling parts up to 10,000 tons in weight. According to the Sixth Five-Year Plan, horizontal forging machines of 5,000-6,000 tons pressure, stamping presses of 4,000-6,000 tons pressure coining presses of 4,000 tons pressure, hydraulic horizontal extrusion presses of over 10,000 tons pressure, and powerful hydraulic stamping presses are to be designed and built.

To fulfill the Sixth Five-Year Plan successfully, it is very important to decide about the type of equipment to be produced in the future. In the first place, it would be expedient to review the products list and the types of press and forging machines, being planned and being produced, adding to them the various type-sizes of mechanized crank-type stamping presses of 2,000, 2,500, 4,000, 5,000 and 8,000 tons pressure, coining presses of 2,500 and 4,000 tons pressure, and forging and stamping automatics with built-in electric heating devices.

An increase in production of planned press and forging equipment, such as rapid-action (400-800 strokes per minute) mechanical and hydraulic presses, sheet-stamping and upsetting automatics with feed mechanisms, and automatics of a horizontal, pneumatic, double-acting hammer type for hot die forging of mass-produced small and medium-sized parts, having a production capacity of 2,500-3,000 pieces per hour, would permit the mechanization and automation of the die forging process.



To make power-producing machines (turbines) and press and forging equipment of superhigh parameters, forgings of low-alloy steel weighing up to 320 tons and forgings of high-alloy and heat-resistant steel weighing 150-200 tons are needed. The existing forging presses of 10,000-15,000 tons pressure do not have forging cranes of the necessary lifting capacity, or suitable heating furnaces. For producing forgings from heat-resistant, high-alloy steel, it is essential to make hydraulic forging presses of 25,000 tons pressure.

The level of mechanization of forge shops is far below that of machine shops and even foundries. Floor-type forging manipulators, replacing the manual labor of forge shop workers, are used only here and there. The production of floor- and rail-type manipulators for ingots weighing more than 5 tons has not been organized.

At present, the press and forging equipment, especially heavy hydraulic forging and stamping presses and steam-air hammers, is not utilized to its full capacity because these machines are used for all preparatory operations. Setting up specialized equipment for preliminary and preparatory work would make it possible to turn out an accurate intermediate product, and a powerful press or hammer would then be used for its primary purpose, to impart to a forged piece its finished shape with several strokes or blows.

Therefore, a whole range of machines is needed, such as bending and up-setting machines, forging rolls, universal hydraulic presses for horizontal and vertical shaping of metal, and equipment for section die forging, which would free powerful forging and stamping presses for other work.

The method of flashless die forging, which affords a 10-to 25-percent saving of metal, and can be used for making all forgings which are symmetrical along their axis, is being held back by lack of rolled metal of the exact sizes. The enterprises of the Ministry of Ferrous Metallurgy should in the near future switch over to production of round bar stock with minus tolerances only, to satisfy the needs of die forging shops.

The existing forging and stamping equipment does not afford the possibility for radical mechanization and automation of a shop. Machine-building plants are called on to achieve a systematic modernization of their equipment and heating furnaces, renewing at least 10 percent of their furnaces and machines each year.

The low level of technological science in forging and stamping production does not permit accurate enough choice of forging and stamping machines for turning out specific forged pieces, especially from alloys which are difficult of shape. Lack of specialized machinery and absence of research work on improvement of forging and stamping technology and development of new designs and materials have resulted in a situation whereby the forge shops are permitting greater tolerances and allowances for the forgings and irregularities in stampings. The absence of measuring instruments for checking the thickness of forgings during the forging process also causes unnecessary allowances and lowers the productivity of overloaded powerful equipment.

The GOSTs in effect do not guarantee the production of forgings with reduced allowances and do not encompass large forgings. These GOST's need to be re-examined. -- A. Eundil, chief, Division of Pressure Processing of Metals, Central Scientific Research Institute of Technology and Machine Building (8 Jun 56).



In 1956, the Ministry of Heavy Machine Building and the Ministry of Machine Tool Building and Tool Industry are planning to turn out about 350 type-sizes of press and forging equipment and to organize the production of 180 type-sizes of new machines. However, very little has been done to put these plans into effect. Plants of the Main Administration of Press and Forging Equipment of the Ministry of Machine Tool Building and Tool Industry are operating especially unsatisfactorily.

In 1955, a large new enterprise for production of medium hydraulic presses and heavy mechanical presses was erected on the southern outskirts of Dnepropetrovsk. Many shops of this plant, equipped with powerful new equipment, including unique machine tools, are already in operation. The plant has organized the production of multitier presses for making plywood and presses for veneering furniture. However, only 11 of the 54 such machines called for by the plant's 1955 plan were made. The 1956 plan calls for the production of K-117 universal presses, which exert a 100-ton pressure, for small die forgings, and P-714 presses. This plan is not being fulfilled, either.

In addition to the above presses, the Dnepropetrovsk Plant must organize the production of ten more types of powerful presses. In the second and third quarters of 1956, it is supposed to make P-795 presses of 3,500 tons pressure for the Zaporazh'ye and Moscow transformer plants. The Sverdlovsk Uralmash Plant is supposed to supply two sets of upper and lower slides, and two cylinders for these presses. After much correspondence and exhortation, the Uralmash Plant agreed to supply the parts, but not until the fourth quarter of 1956. The Dnepropetrovsk Plant's design bureau has designed a 1,000-ton press of welded construction for making plastic products. The press cannot be put into production, however, because the cooperating enterprises do not guarantee fulfillment of the orders.

Many such examples could be cited. Moreover, in addition to the trouble caused by other enterprises, all is not well within the plant itself. There are many violations of labor discipline, and Polonevskiy, chief engineer of the plant, admits that technological discipline is weak. The equipment for production of the K-117 press was completed much later than scheduled, and then it was of such poor quality that 70 tools and devices had to be made again.

In the shops which have already been built, many small things remain to be done by the construction trust. A good example of the way in which this incompleting work hinders production is the fact that the open-hearth furnace cannot be put into service because of the many small jobs which still must be done on it.

For the plant to meet its task of turning out many hydraulic and heavy mechanical presses in 1956, the ministry must give it the help it needs.
(16 May 56)

Voronezh Plants

The Experimental Scientific Research Institute of Press and Forging Machine Building, the Special Design Bureau, and, most important of all, the Heavy Mechanical Presses Plant and the Press and Forging Equipment Plant imeni Kalinin constitute the basis on which the city of Voronezh, in the near future, must become one of the centers of press and forging machine building. The state of affairs at these two plants, however, gives cause for great anxiety.

The Heavy Mechanical Presses Plant has been in existence for 2 years. It is earmarked for building forging and stamping presses of 630, 1,000, 1,600, 2,000, 2,500, and 4,000 tons pressure; coining presses of 1,250, 1,000, and 2,500 tons pressure; and a number of special-purpose machines. Although the plant is considered to be in operation and has a production program, it is still not a plant in the usual meaning of the word.

The iron foundry, steel foundry, and press shop have not been completed, nor have the main building, rail siding (depo), laboratories, and other facilities. The plant is still awaiting representatives from the Institute of Electric Welding imeni Paton, who are to demonstrate methods of welding to be used in making heavy parts for 2,000-ton and 2,500-ton forging and stamping presses. The average qualification of the workers does not exceed the third class, and the machine shops have unique machine tools which many of the workers have never seen before. In these more than difficult conditions the plant is turning out machines, however. In the first quarter of 1956, it made 24 of the 37 presses called for in the plan. But it is not surprising that the quality of these machines leaves much to be desired. Neither the Ministry of Construction nor the Ministry of Machine Tool Building and Tool Industry is taking decisive measures to speed up the lagging construction of the plant.

The Press and Forging Equipment Plant imeni Kalinin is also the victim of protracted construction work. The 1955 plan, which called for the plant to turn out over 1,200 machines of various types (46 type-sizes, of which 24 are machines of a new type), was based on the utilization of production facilities which are not yet completed. The plant is exceeding its plan, but only for gross and commodity production. It regularly fails to fulfill its product-list plan.

The plant imeni Kalinin has a well-knit working force and progressive production methods, has more than once been awarded the Transferable Red Banner of the Council of Ministers USSR, and has many fine traditions. However, the lagging construction of new facilities is not the only reason that the plant does not fulfill its product-list plan. For example, not far from the foundry is a pile of large castings. This pile is a 2-year supply of anvil blocks for large hammers. A. Kostromin, chief engineer of the plant, explains the presence of this pile of anvil blocks by saying that it is necessary for them "to age," to sit out in the open to acquire the necessary hardness. Actually, the foundry, having fallen behind in its production program and needing to fulfill its plan, at least in tonnage (this happens quite often, by the way), decided to plug the gap by turning out the very simplest type of casting, namely, anvil blocks. Although the foundry is the worst bottleneck in the plant, the plant management turns a deaf ear to requests for needed equipment which would improve the operation not only of the foundry but also of the plant as a whole.

The short-sightedness of the plant management is also apparent in more important problems. For instance, Special Design Bureau No 10 worked out an intermittent constant-flow line for production of pneumatic hammers at the plant. So far, the plant has made only 50 of the necessary 300 devices for the line, excusing its dilatoriness in this matter by saying that the tool shop is overloaded with work. Also the plant management is not taking sufficient measures against the many violations of labor discipline, such as leaving work long before the end of the shift.

I. Shteyngaus, chief of the Production Division of the Main Administration of Press and Forging Machine Building, has justifiably reproached S. Podrez, chief designer of the plant imeni Kalinin, for the delay in turning out designs for two new types of machines, as well as for the fact that the plant's design division is constantly tardy with its technical documentation. Podrez defends his position thus: "Here come the main administration to us with a complaint

that a very important press for production of refractory brick has not been made yet. But does the main administration know that the press plans, drawn up at the Uralmash Plant, turned out to be completely worthless? Does the main administration know that Designer Chernyak had to go to Zaporozh'ye, where, as we found out, they studied these presses in detail and are making changes in their design? Chernyak went and determined that it is necessary to make 56 essential design changes in these presses. That is what our plant designers have to spend their time on." Thus far, the plant has been informed as to only six new type-sizes of machines which must be produced in 1957. Meanwhile, drawings must be made, production readied, and others given out to cooperating enterprises. It is clear that once again there will be a last-minute rush and, as a result, poor-quality production.

Such is the situation at the Voronezh press and forging machine building plants, which have been called on to play an important industrial role but which are not ready for that role. These plants are looking to the Ministry of Machine Tool Building and Tool Industry to lead them out of the ranks of the "eternally under construction," and to give them other kinds of help in overcoming their backwardness. (25 May 56)

Kolomna Plant

The largest plant in the USSR for production of heavy, unique machine tools and presses is the Kolomna Heavy Machine Tool Building Plant. In the Fifth Five-Year Plan, the plant organized the production of 36 types of heavy machine tools and presses of original design. In 1955 alone, it turned out 16 new types of machine tools and presses. Among them were presses weighing 800 tons and 1,000 tons and capable of exerting pressures of up to 12,000 tons, made for the Chelyabinsk Pipe Plant. In addition, it turned out presses of up to 2,000 tons capacity for making various shapes and tubing.

The plan for press production at this plant was drawn up in 1951 by Giprostank (State Institute for Planning Machine Tool, Tool, Abrasives, and Press and Forging Machine Building Plants). According to this plan, the plant was to turn out presses with an average weight of 90 tons and a maximum weight of 150 tons. The press production building had not even gone into operation, however, before the plan was already outmoded. In 1955, the presses turned out by the plant weighed 130, 300, 600, 800, and 1,000 tons. The height and lifting capacity of the crane facilities in the press building do not now meet the needs of press production. It is necessary to add to the building a wing whose crane tracks would be 25-28 meters high and which would have cranes of up to 250 tons lifting capacity. Such facilities would enable the plant to make heavy presses of any desired size. Also, the plant is suffering from lack of storage area, an experimental base, and other facilities. A. Kostousov, Minister, and D. Ryzhkov, Deputy Minister for Introduction of New Technical Developments, of the Ministry of Machine Tool Building and Tool Industry are cognizant of the economic expediency of giving the plant these new facilities, but so far have given only lip service to the proposals. -- I. Shakhrai, director, Kolomna Heavy Machine Tool Building Plant (25 May 56).

Barnaul Plant

The Barnaul Mechanical Presses Plant is failing to fulfill its production program. Since the beginning of 1956, it has failed to turn out dozens of machines which were called for by the plan. Moreover, it is dilatory in organizing the production of new types of mechanical presses and automatics.

Plant leaders explain this situation by pointing to the protracted reconstruction of the plant's shops, the excessively large products list, and the uncertainty in the delivery of materials from other plants. This is all true, but the main reason for the plant's failure to meet its plan is that the plant's own resources are not utilized properly. It is enough to say that, in the first quarter of 1956 alone, the down time of equipment exceeded 120,000 machine-tool-hours.

An accurate production control system has not been organized at the plant. The foundry, which has the highest reject rate in the plant, constantly fails to deliver the requisite castings to the machine shops, thereby hamstringing the operations of these shops. In February, the foundry turned out a set of parts for a K-767 crank-type press and sent it to the machine shops. In May, when the machine was being assembled, it was learned that 20 percent of the castings had not been made. Also, the plant could improve its performance by a wider use of unified parts and units.

The plant's low level of production technology is another factor hindering the plan fulfillment. Gears, which, by the way, are not heat-treated, are set on shafts in the following manner: the unit [shaft and gear] is suspended on ropes, set into a swinging motion, and beat against a heavy object. Bronze inserts are pressed into large gears by dropping a 5-ton platform onto the part from a height of several meters. Can there be any question as to the quality of such production?

The main administration and the Ministry of Machine Tool Building and Tool Industry are not giving the Barnaul Plant material and technical assistance. The Novosibirsk Tyazhtankogidropress Plant, for example, regularly fails to deliver forgings and castings to the plant, but the main administration and ministry take no action to rectify the situation. (6 Jun 56)

Novosibirsk Plant

The business of building presses is in exceptionally poor shape at the Novosibirsk Tyazhtankogidropress Plant. During the past 5 months of 1956, the enterprise has delivered to the state eight fewer hydraulic presses than it was supposed to. In May, instead of three presses, the plant turned out one. Press building is lagging behind machine-tool building not only in quantitative but also in qualitative and economic aspects.

The plant management has asserted that it has done everything in its power to ensure an increase in production of presses, pointing to the fact that hydro-press shop No 3 has received additional boring machines of high production capacity. The management attributes this lagging in press building to an extensive products list, the large amount of work expended in organizing production of new machines, and other conditions.

However, the main reason for failure to fulfill the plan lies not in objective conditions but in large-scale organizational defects and in an obvious undervaluation of presses. Blunders in production planning are seriously impeding the production of presses. For instance, making unified and normalized parts in batches is not considered.

A decisive role in fulfillment of an enterprise's plan is played by work done in preparation for production. The Tyazhtankogidropress Plant does not follow that rule. Technological processes for production of parts for 6 new presses, 6 hydraulic pumps, and 8 hydraulic pressure tank units, which have to be turned out in 1956, are not yet developed.



There is a definite shortage of technologists, and their main efforts are directed toward production of machine tools, to which an evident preference is given by the plant. Great help in developing technological processes could be given to the plant by the locally organized affiliate of Orgstankinprom (All-Union State Technological Planning and Experimental Institute). However, the Ministry of Machine Tool Building and Tool Industry and the Main Administration of Press and Forging Machine Building do not instruct the affiliate to provide such help.

Delays in preparations for production of press equipment are often a fault of designers of the Special Design Bureau, which is regularly late in issuing documentation for new machines and allows numerous mistakes to creep into the blueprints. There is hardly a press which has been modified less than 100 times during its assembling process. Baranovich, chief of the hydraulic press shop, said that almost all the working time of the third shift is being spent in remaking imperfect parts and assemblies. The unsatisfactory work of this design bureau can be blamed on I. Kaplin, chief, and V. Mikheyev, chief designer.

A bad example to the plant's designers is set in this respect by the Central Bureau of Press and Forging Machine Building. Owing to mistakes in blueprints of the I-337 press, designed by engineers of this bureau, the enterprise has lost over 100,000 rubles just in setting up this machine.

The plant has many innovators, one of whom has developed a new method for boring cylinders for the B-374 press. Unfortunately, such new methods do not find widespread use at the plant. (20 Jun 56)

Chimkent Plant

The Chimkent Presses and Automatics Plant is one of the "first born" of the young machine-building industry of the Kazakh SSR. Presses and special equipment made by this plant may be seen in Moscow, Leningrad, Sverdlovsk, and Kiev, and at the largest construction projects in the USSR, as well as in India, China, Poland, and Vietnam. The plant's A-148 and A-148-A automatics have been highly praised by their users. Also of interest is the A-304 horizontal forging machine, which develops a pressure of 160 tons and is designed for die-forging link pins for scraper conveyers. This machine uses hot bar stock, turning out a finished two-headed link pin with one blow.

In the Sixth Five-Year Plan, the plant must increase its production of special presses to 5 1/2 times, its production of forging machines to over 2 times, and its production of automatic presses almost 2 times [the level of the Fifth Five-Year Plan?]. However, in fulfilling its tasks, the plant is faced with great difficulties. For example, it has been trying to turn out a diskless press for a long time, but the project is being held up by the development of a friction drive shaft. Shafts have been made of plastic, textile, wood, and asbestos sheets, but they all wear out too quickly. The plant has turned to the Leningrad Plant imeni Komsomol'skaya Pravda for help in making the shaft, but apparently it will not be made in 1956. It would be more feasible technically to utilize a reversing motor and gear drive in stead of a friction shaft, but the electrical industry does not make such reversing motors.

The plant could have organized the series production of V-112 horizontal forging machines 2 years ago, but it took the Novosibirsk Tyazhstankogidropress Plant 1 1/2 years to fulfill the order for casting the frames. In 1955, the Chimkent Plant was supposed to make four automatics of the A-300 type. The order to cast the frames for these machines was given again to the Novosibirsk Tyazhstankogidropress Plant. Two of the frames were received only very recently, and the other two have still not been made.

The plant was unprepared for the fulfillment of the production plan of the current year for forging and press equipment. Although it had received a preliminary plan for 1956 during the middle of last year, and had begun preparations, this plan was almost completely changed the following December.

Although the plant manufactures equipment requiring long production cycles and long-range planning is highly important for this purpose, Glavtyazhstankoprom and the Ministry of Machine Tool Building and Tool Industry, as a rule, are very late in submitting plans to the plant. This creates great difficulties in placing orders with cooperating enterprises, and forces long delays in the formulation of technical documents and the preparation for production.

In October 1955, the plant was supposed to have produced the P307 press. However, its main part, the cushion, was received only a month ago. Of course the press has not yet been built. The P664A press for the production of rods and pipes by means of extrusion, which was planned for production in December of last year, likewise has not been produced.

Confusion in planning has persisted into the current year. The PA0-16 press for the hydraulic testing of pipes was supposed to have been produced in May, but no technical documents for it have been received. No efforts have been made to produce it, since the plan of organizational and technical measures for 1956, which was approved by Shakhrai, director of the plant, and Afanas'yev, chief engineer, suddenly called for the production of this press, which is called an experimental type, not in May, but during the third quarter.

Workers of the shop consider that the monthly plans shoved off on them are deliberately out of touch with reality, and when a plan arrives one day they wait for the next day to see it changed. According to the plan, the P664B press was to be produced in April, but the production and planning division formulated another operational plan, in which the deadline for production of the press was postponed to June. Auxiliary shops, taking stock of this change, postponed their deadlines for producing parts for the press. The total result boils down to the fact that there are still no steel castings or heavy forgings of 42 designations for a machine which should have been produced in April. Workers of the shop are convinced that the machine will not be produced even in June. There are no technical documents for a 500-ton-capacity P814 vertical hydraulic press, which also is supposed to be produced in June.

Because of these deficiencies, the press shop is not fulfilling its plan, is permitting lost machine time and man-hours, and is operating in uncertainty, without any definite plans for the future. During only 4 days in May, more than 100 machinists were given leave because of lack of work, and more than 20 workers were put to work maintaining and cleaning the plant's yard. These are the fruits of queer planning and weak production organization.

The lack of clear future plans leads to great deficiencies in the work of the Division of Cooperation. Almost all the workers of the division are off on trips somewhere. They are "squeezing out" parts which other enterprises are supposed to supply to the Kolonna Heavy Machine Tool Plant. Nevertheless, this "squeezing out" is of little use.

For years the Chimkent Plant was floundering in the depths of nonfulfillment of plans. Then came a change of plant management and a strengthening of the labor forces. Now the plant exceeds its plan, and apparently gives no cause for worry. However, all is not well. The plant is caught in the throes of end-of-month rush tactics. For example, it completed the second quarter of 1956 with the usual rush, exceeding the plan for gross production. But at the same time, it did not fulfill its products-list plan, and instead of the planned reduction in production costs there was a 6.3-percent increase.

The plant has excellent equipment, but does not utilize it fully. It is slow in adopting new production technology and in mechanizing labor-consuming processes. There are no hoisting mechanisms in the forge and boiler shop, for instance, although some forgings weigh half a ton. Moreover, the plant is doing nothing toward making a transition from smith forging to die forging. The machine and assembly shop likewise suffers from a shortage of hoisting mechanisms. The plant's central laboratory has no definite working plan. Petrzhirovskiy, plant director, and Gaydabura, chief engineer, almost never bother even to glance into the laboratory.

In the first half of 1956, the plant's reject losses amounted to 700,000 rubles. The foundry reject rate for iron castings increased in this period 5.9 percent above the rate for the first half of 1955. The following is a characteristic example of how the plant's production suffers from reject parts. When the assembly shop was checking a completed A-124 machine, it discovered that 52 parts had to be made over and 80 parts required additional processing. The foremen in the Division of Technical Control had placed their stamp of approval on parts which they knew to be defective.

Operating thus, the plant exceeded its plan for the first half of 1956. The plant situation does not bother the workers in the ministry. They mark up a satisfying "105 percent" on their chart and once again list the plant among their progressive enterprises. The Chimkent plant has all the possibilities of becoming a progressive enterprise in the true sense, but it is in need of serious help, in both materials and workers. (27 Jul 56)

Results of Hazy Planning and Late Preparations

A stand, on which the words of the directives of the 20th Congress of the CPSU calling for at least a quadrupled output of heavy forging and pressing machines are inscribed, has been set up on the grounds of the Kolomna Heavy Machine Tool Building Plant. Kolomna machine-tool builders have been called on to play a major role in the fulfillment of this task. During the middle of last year, a special shop for the production of presses was constructed at the plant. At first, it was proposed to use the shop for the production of small machines, but then the plan was revised, and complex presses were included in the plant's program.

The plant has the necessary specialists, workers, equipment, and production space for making press equipment. Despite this, the plant has not been fulfilling its plan. During the first 5 months of 1956, it failed to fulfill its commodity and gross production plans and has chronically disrupted its products-list assignment.

What is the reason for the plant's lag?

Cherepan, chief of the Division of Cooperation, gives examples of the violation of deadlines for shipping press parts by supplier plants. The Sverdlovsk Industrial Rubber Products Plant of the Ministry of Chemical Industry was supposed to supply five rubber cushions for P307 presses in 1955, but has not produced a single one to this day. In 1956, it was given the assignment of producing 11 more cushions, but only three have arrived in Kolonna, and even these turned out to be useless. For this reason, a lag in the testing of a finished press has developed, and the production program has been disrupted. The matter of the rubber cushions has long been out of the jurisdiction of the plant. Ivanov, Deputy Minister of Chemical Industry, has occupied himself with this problem, but with no success. The "Kauchuk" Plant is very unpunctual in supplying cups for presses. But it is not only the plants of other ministries that are failing to fulfill their assignments for cooperative supply. Enterprises of the Ministry of Machine Tool Building and Tool Industry USSR, such as the Khar'kov Elektrostank Plant and the Khar'kov Gidropriyod Plant, are failing to honor their commitments. Despite the many demands made by Karpov, chief of Glavtyazhstankoprom, and the orders of Taranichev, deputy minister, the Gidropriyod Plant has not supplied LRGMZ-40 and 2RGM-40 slide valves.

The building of the new press shop creates an imposing impression, but actually it can serve as an example of how one should not be built. It was designed by the Giprostank Institute of the Ministry of Machine Tool Building and Tool Industry. In our opinion, M. Gordon, chief engineer of the project, had an irresponsible attitude toward his work. The small parts and blank storeroom, the mechanics workshop, and the tool-room, separated from one another by partitions, extend the entire length of the shop, premises for auxiliary services were not provided for in the plan. These premises are located on production space, under crane ways. No facilities for workers were provided for in the plan. Heavy unfinished parts, which should be kept on a scaffold, are piled up in the shop; no attempt has been made to build a scaffold yet. The production capacity of the shop has been lowered by these "miscalculations". The access into the shop cannot withstand any criticism. This access is only several meters of railway, on which one flatcar can barely fit. Frequent crosshauling of loads creates complete confusion in machine assembly sections, where loads are conveyed around and in between the assembly workers.

When the shop was erected, the nature of the site was not studied, and this lack of foresight has proved costly to the plant. The fault lies in the fact that subterranean waters are located under the shop. These waters ooze out in little depressions around the foundations of heavy machine tools. This has an adverse effect on the normal operation of machine tools and on their accuracy. Many difficulties arise in the removal of chips, in the preventive maintenance of machine tools, and in the use of coolant emulsions.

The past winter brought much misery to the workers of the shop. Water froze in the shop, and it was difficult to use fluids and hydraulic mechanisms. Boreholes had to be built in the shop. Through the fault of the designers and builders, the shop had insufficient heating apparatus and no inner windows. Spring brought little joy. Although it got warm in the shop, the roof began to leak, and it was necessary to build canopies and drapes over the unit-type machine tools. To this very day, the construction of skylights has not been completed in the shop. Although the proper document concerning this and other problems was drawn up, and although construction trust UNR644 (UNR3 are usually subordinate to construction trusts) of the Ministry of Construction undertook the task of correcting these deficiencies, the situation remains unchanged.

The building plans did not provide for storage space for materials, finished products, semifinished products, master parts, and electrical equipment. All these articles are kept in any handy place that may be available.

Only after numerous complaints by the plant did any drainage work finally begin. This should protect the shop from subterranean waters; however, the work is being done extremely slowly.

Needless to say, the existing condition of the plant is well-known to the leading personnel of the ministry. Kostousov, minister, and Ryzhkov and Taranichev, deputy ministers, know about the abnormal operations of the press shop, but do not give the plant any concrete aid.

We shall hope that the leading personnel of the Ministry of Machine Tool Building and Tool Industry will at long last turn their attention to the Kolomna Heavy Machine Tool Plant and help its workers to assure the production of high-quality press and forging machines in sufficient number to satisfy the needs of the national economy. -- Brigade of Promyshlenno-Ekonomicheskaya Gazeta: V. Glagolev, deputy chief technologist; B. Kulagin, senior foreman of the machine section; and P. Il'in, correspondent of Promyshlenno-Ekonomicheskaya Gazeta (15 Jun 56)

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